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PATENT APPLICATION  
09/477,297

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**In The United States Patent and Trademark Office  
On Appeal From The Examiner To The Board  
of Patent Appeals and Interferences**

In re Application of: James R. Tighe et al.  
Serial No.: 09/477,297  
Filing Date: January 4, 2000  
Group Art Unit: 2661  
Examiner: Steven Blount  
Title: SYSTEM AND METHOD FOR A VIRTUAL  
TELEPHONY INTERMEDIARY

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*Willie Jiles*

Willie Jiles

Date: May 16, 2005

**Appeal Brief**

Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed January 12, 2005, finally rejecting 1, 4-7, 9-11, 13-18, 20-21, and 24-34, all of which are pending in this case. Appellants filed a Notice of Appeal on March 14, 2005. Appellants respectfully submit this Appeal Brief with the statutory fee of \$500.00.

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**Real Party In Interest**

This application is currently owned by Cisco Systems, Inc., as indicated by an assignment recorded on January 4, 2000, in the Assignment Records of the United States Patent and Trademark Office at Reel 010517, Frames 0620-0626.

**Related Appeals and Interferences**

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this appeal.

**Status of Claims**

Claims 1, 4-7, 9-11, 13-18, 20-21, and 24-34 are pending in this application. Claims 1, 4-7, 9-11, 13-18, 20-21, and 24-34 are rejected pursuant to a final Office Action mailed January 12, 2005, and are all presented for appeal. All pending claims are shown in Appendix A.

**Status of Amendments**

All amendments submitted by Appellants were entered by the Examiner before the issuance of the final Office Action mailed January 12, 2005.

**Summary of Claimed Subject Matter**

The present invention relates to a virtual telephony intermediary that may be logically inserted between telephony devices to act as an intermediary between the telephony devices. Once such a connection is established, signaling and media streams that pass through the virtual telephony intermediary may be manipulated for various reasons before they are sent on to the destination device. Advantages of such manipulation include the ability to provide address translation, provide network security, duplicate streams, dynamically redirect streams, maintaining connections between devices, and inject media. A virtual telephony intermediary may also serve as an intermediary between telephony devices that use different types of call or control signaling, compression or encoding formats, sizes of data payloads, media sampling lengths, or any other communication parameters. *Page 3, line 30 -- Page 4, line 17.*

Referring to Figure 1 of the application, in order for a call or other communication to be placed through a virtual telephony intermediary (for example, a call placed to a IP telephony device in a LAN through a virtual telephony intermediary), the telephony device registers with the virtual telephony intermediary. A call manager may instruct the telephony device to register with the virtual telephony intermediary or a user may manually instruct telephony device 22 to do so. The telephony device signals the virtual telephony intermediary via TCP/IP indicating that it would like to register. If the virtual telephony intermediary accepts the registration request, the telephony device sends a registration message to the virtual telephony intermediary using TCP/IP (or any other appropriate media transmission protocol). The registration message typically comprises information about the telephony device such as the telephony device's IP and media access control (MAC) addresses, the type of telephony device, and the codec(s) used by the telephony device. *Page 15, line 22 – Page 16, line 8.*

The components and operation of an example virtual telephony intermediary 28 are illustrated in Figure 4 of the application. The virtual telephony intermediary 28 includes one or more logical ports 80, such as UDP or TCP ports. Incoming telecommunication data 82, such as RTP media streaming, is received from a telephony device at logical port 80a and is communicated to an address translation module 83. The address translation module 83 modifies source address information associated with the telecommunication data 82, such as

an IP header associated with the telecommunication data 82 contained in a payload section of an IP packet. This address translation may include changing a source IP address in the IP packet header to the address of the virtual telephony intermediary 28, and changing the source port in a header to the logical port 80 of the virtual telephony intermediary 28 associated with the telephony device from which the telecommunication data 82 was received (e.g., port 80b). The address modification module 83 transfers telecommunication data 82' with the modified source address information to a data manipulation module 84. Alternatively, if address translation is not performed, the telecommunication data may be transferred directly to data manipulation module 84 upon receipt by the virtual telephony intermediary 28. *Page 20, line 18 – Page 21, line 9.*

The data manipulation module 84 may manipulate the telecommunication data, such as the data contained in the payload section of incoming IP packets, in a variety of ways. This manipulation may include buffering, duplicating and/or recording the incoming telecommunication data. Furthermore, the data manipulation module 84 may convert the telecommunication data from a first data format to a second data format. For example, the data manipulation module 84 may convert from one audio encoding format, such as G.711, to another audio encoding format, such as G.729. The data manipulation module 84 may also convert between different data compression formats (such as A-law and  $\mu$ -law) or between different signaling protocols. *Page 21, lines 10-22.*

The data manipulation module 84 may also add media or other data to the telecommunication data or delete a portion or all of the telecommunication data. For example, the data manipulation module 84 may delete the data in the payload section of incoming packets. The “empty” packets are then communicated to a telephony device (e.g., to simulate placing the telephony device “on hold”). In addition, the data manipulation module 84 may add music or other substitute telecommunication data to the “empty” payload section before communicating the packets to the on-hold telephony device. *Page 21, line 23 – Page 22, line 2.*

After one or more of the above manipulations, the data manipulation module 84 transfers the manipulated telecommunication data 86 to a transmission module 88, such as a TCP/IP or UDP/IP protocol stack. The transmission module 88 communicates the manipulated telecommunication data 86 to the appropriate telephony device or devices. If the



address translation module 83 has performed an address translation, the manipulated telecommunication data 86 appears to the destination telephony device to have been sent from the logical port 80 (such as port 80b) that is associated with the telephony device that originally sent telecommunication data 82. Furthermore, although telecommunication data 82 may be received from a single telephony device, the transmission module 88 may send the manipulated telecommunication data 86 to multiple telephony devices (e.g., when the data manipulation module 84 duplicates the telecommunication data 82). *Page 22, lines 3-19.*

**Grounds of Rejection to be Reviewed on Appeal**

Appellants request that the Board review the Examiner's rejection of Claims 1, 4-5, 10-11, 13, 16-18, 20-21, 24-25, 28-29, and 33-34 under 35 U.S.C. §103(a) as being obvious over U.S. Patent 6,449,269 issued to Edholm ("*Edholm*") in view of U.S. Patent No. 6,321,336 issued to Applegate et al. ("*Applegate*") and the Examiner's rejection of Claims 1, 4-5, 10-11, 13, 16-18, 20-21, 24-25, 28-29, and 33-34 under 35 U.S.C. §103(a) as being obvious over U.S. Patent 6,272,633 issued to Duke ("*Duke*") in view of *Applegate*. Furthermore, Appellants request that the Board review the Examiner's rejection of Claims 7, 15, 27, 30 and 32 under 35 U.S.C. 103(a) as being obvious over either *Edholm* or *Duke* in view of *Applegate*, and further in view of U.S. Patent No. 6,002,689 issued to Christie et al. ("*Christie*").

**Argument**

The Examiner's rejections of Claims 1, 4-7, 9-11, 13-18, 20-21, and 24-34 is improper, and the Board should withdraw the rejections for the reasons given below.

**I. The Examiner's Rejection of Claims 1, 4-5, 9-11, 13, 16-18, 20-21, 24-25, 28-29, and 33-34 Under 35 U.S.C. § 103(a) Over *Edholm* in Light of *Applegate* is Improper**

The Examiner rejects Claims 1, 4-5, 10-11, 13, 16-18, 20-21, 24-25, 28-29 and 33-34 under 35 U.S.C. §103(a) as being obvious over U.S. Patent 6,449,269 issued to Edholm ("*Edholm*") in view of U.S. Patent No. 6,321,336 issued to Applegate et al. ("*Applegate*").

In order to establish a prima facie case of obviousness, three requirements must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge available to one skilled in the art, to modify a reference or combine multiple references; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or combination of references) must teach or suggest all of the claim limitations.<sup>1</sup>

In the present case, a prima facie case of obviousness cannot be maintained because there is no suggestion, teaching, or motivation to a person of skill in the art to combine *Edholm* or *Applegate* to achieve the present invention. *Edholm* discloses data processing in the context of facilitating improved communication between telephony devices. However, *Edholm* does not disclose the need for or the use of its invention for performing address translations. *Applegate* discloses address translations on communications between FTP servers for the purposes of protecting internal networks from external networks. However, *Applegate* does not disclose manipulating telecommunications data or the need for such manipulation, nor does *Applegate* teach or suggest the use of its firewall between telephony devices.

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<sup>1</sup> M.P.E.P. § 2143.

The M.P.E.P. and Federal Circuit case law support Appellants' position that a combination of references is improper in this case. The M.P.E.P. sets forth a strict legal standard for finding obviousness based on a combination of references. According to the M.P.E.P., "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally available to one of ordinary skill in the art" at the time of the invention.<sup>2</sup> The "fact that references can be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification.<sup>3</sup>

The governing Federal Circuit case law makes this strict legal standard even clearer.<sup>4</sup> According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine . . . prior art references is an essential component of an obviousness holding."<sup>5</sup> "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved."<sup>6</sup> However, the "range of sources available . . . does not diminish the requirement for actual evidence."<sup>7</sup> In *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board of Patent Appeals and Interferences, explaining that proper evidence of a teaching, suggestion, or motivation to combine is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a

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<sup>2</sup> M.P.E.P. § 2143.01.

<sup>3</sup> *Id.* (emphasis in original).

<sup>4</sup> Note M.P.E.P. § 2145(X)(C) ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

<sup>5</sup> *In re Sang-Su Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000)).

<sup>6</sup> *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999).

<sup>7</sup> *Id.*

blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.<sup>8</sup>

Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed combination is not sufficient to establish obviousness.<sup>9</sup>

In the Final Office Action, the Examiner states that one of ordinary skill would be motivated to combine *Edholm* and *Applegate* “in view of the fact the system provided by Applegate et al (source address translation, and protection of user resources 170 and 100 in figure 1) would provide for a secure and private communication channel between the end users in Edholm et al,” noting that “it is well known in this art that the difficulty and desirability of providing secure communications in a VOIP system is a relevant problem.” (Final Office Action, page 6). However, Appellants submit that the Examiner still has not provided actual evidence of a motivation to combine. Simply because the proposed combination would supposedly be helpful is insufficient under the M.P.E.P. and governing Federal Circuit case law. Furthermore, the Examiner has provided an assertion of what “is well known” without providing a citation of a reference showing such as of the filing date of the present application or providing an affidavit supporting such facts as the Examiner’s personal knowledge, one of which is required by M.P.E.P. § 2144.03. Moreover, “[t]he level of skill in the art cannot be relied upon to provide the suggestion to combine references.”<sup>10</sup> “A statement that modifications of the prior art to meet the claimed invention would have been ‘well within the ordinary skill of the art at the time the claimed invention was made’ because the references relied upon teach that all aspects of the claimed invention were

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<sup>8</sup> *Id.* (quoting *W.L. Gore & Assoc., Inv. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983)) (emphasis added) (citations omitted); see also *In Re Jones*, 958 F.2d 347, 351 (Fed. Cir. 1992) (“Conspicuously missing from this record is any evidence, other than the PTO’s speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at” the claimed invention.).

<sup>9</sup> See *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988).

<sup>10</sup> M.P.E.P. § 2143.01 (citing *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ.2d 1161 (Fed. Cir. 1999)).

individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.”<sup>11</sup>

In addition, the proper inquiry is not whether it would have been obvious to simply provide for a “secure and private communication channel.” There must be a suggestion to combine the references to teach the claimed invention. More specifically, it must be obvious to combine the “address translation” steps of the claims with the “data manipulation” steps (as well as the other steps of the claims). Whether such a combination is obvious is not a question of whether it is obvious to provide a secure and private communication channel, as implied by the Examiner. Appellants respectfully argue that there is no suggestion to combine *Edholm* and *Applegate* to teach the limitations of independent Claims 1, 10, 18, and 21, and that the Examiner is improperly using the Appellants' disclosure as a blueprint for piecing together various elements of *Edholm* and *Applegate* to achieve the Appellants' invention.

For these reasons, Appellants request allowance of Claims 1, 10, 18, and 21 as well as the claims that depend from these independent claims.

**II. The Examiner's Rejection of Claims 1, 4-5, 9-11, 13, 16-18, 20-21, 24-25, 28-29, and 33-34 Under 35 U.S.C. § 103(a) Over *Duke* in Light of *Applegate* is Improper**

The Examiner rejects Claims 1, 4-5, 10-11, 13, 16-18, 20-21, 24-25, 28-29 and 33-34 under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,272,633 issued to Duke et al. ("*Duke*") in view of *Applegate*.

Again, as stated above, in order to establish a *prima facie* case of obviousness, three requirements must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge available to one skilled in the art, to modify a reference or combine multiple references; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or combination of references) must teach or suggest

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<sup>11</sup> *Id.* (citing *Ex parte Levengood*, 28 USPQ.2d 1300 (Bd. Pat. App. & Inter. 1993)).

all of the claim limitations.<sup>12</sup> Appellants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness at least because the Examiner has not established the first requirement recited above with respect to combination of *Duke* and *Applegate*. In addition, the Examiner has not established the third requirement recited above.

**A. There is No Suggestion, Teaching, or Motivation to Combine *Duke* and *Applegate***

With respect to the combination of *Duke* and *Applegate*, the Examiner refers in the Final Office Action to the reasoning provided with respect to the *Edholm/Applegate* combination. Furthermore, the Examiner notes that it is even more obvious to combine the data encryption functionality of *Duke* with the address translation functionality of *Applegate*, since this would provide multiple layers of security. Again, simply because the proposed combination would supposedly be helpful is insufficient under the M.P.E.P. and governing Federal Circuit case law. For this reason and for the other reasons provided above with respect to the *Edholm/Applegate* combination, Appellants submit that there is no suggestion to combine *Duke* and *Applegate* to teach the limitations of independent Claims 1, 10, 18, and 21, and that the Examiner is improperly using the Appellants' disclosure as a blueprint for piecing together various elements of *Duke* and *Applegate* to achieve the Appellants' invention. For these reasons, Appellants request allowance of Claims 1, 10, 18, and 21, as well as the claims that depend from these independent claims.

**B. The Combination of *Duke* and *Applegate* Does Not Disclose Each and Every Limitation of Claims 1, 10, 18 and 21**

Furthermore, even assuming for the sake of argument that the *Duke/Applegate* combination is proper, these two references do not teach each and every limitation of Claim 1, 10, 18, and 21. For example, in the rejection of Claims 1, 10, 18, and 21, the Examiner states that *Duke* teaches a telephony intermediary (alleged to be encoder 210) that is associated with first and second telephony devices (alleged to be 110 and 150) and that encrypts payload received from the first telephony device and communicates it to the second telephony device. (Office Action mailed 6/4/04, Page 3). However, Appellants respectfully

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<sup>12</sup> M.P.E.P. § 2143.

submit that encoder 210 is not a telephony intermediary as recited in the claims and elements 110 and 150 are not telephony devices. The Examiner is trying to create two components where there is only one in order to find the telephony intermediary limitation of the claims.

More specifically, elements 110 and 150 are “voice sources,” not telephony devices. The Examiner notes in the Final Office Action that there are telephones in the boxes labeled 110 and 150, so they must be telephony devices. However, the description makes it clear that these boxes represent the analog voice input into a telephony device (for example, a user speaking into a handset of a telephony device – which coincidentally is what is pictured in the boxes). This analog input then is received by the telephony device (encoder 210), which processes it for communication over a network. For example, *Duke* states that “voice source 110 provides a voice input for encoder 210. Encoder 210 then processes the voice input to create a secure voice frame for transmission over Internet 50.” (Col. 4, lines 14-17). Therefore, encoder 210 is not the “telephony intermediary” recited in the claims, but instead is simply a digital telephony device that (among other functions) receives and digitizes analog speech for communication on a digital network. The Examiner is attempting to create an intermediary where there is none by chopping up the disclosed telephony device 210 and 250 in an attempt to insert an intermediary between them when there simply is none.

For this reason, *Duke* does not disclose, teach, or suggest a “telephony intermediary” and thus the proposed *Duke/Applegate* combination does not teach each and every limitation of Claims 1, 10, 18, 21 and 30. Therefore, for at least this additional reason, Appellants respectfully request allowance of Claims 1, 10, 18, 21, and 30, as well as all claims that depend from these claims.



**III. The Examiner's Rejection of Claims 7, 15, 27, 30 and 32 Under 35 U.S.C. § 103(a) Over *Duke* or *Edholm* in Light of *Applegate* and *Christie* is Improper**

The Examiner rejects Claims 7, 15, 27, 30 and 32 under 35 U.S.C. 103(a) as being obvious over either *Edholm* or *Duke* in view of *Applegate*, and further in view of U.S. Patent No. 6,002,689 issued to Christie et al. ("*Christie*"). However, there is no suggestion, teaching, or motivation to combine *Duke* or *Edholm* with *Applegate* and *Christie*.

The Examiner states that "[i]t would have been obvious . . . to have provided the intermediary of (Duke et al or Edholm)/Applegate et al with a protocol converter, in light of the teachings of Christie et al, in order to allow the participants in the conversation to converse over networks of different types." (Final Office Action, Page 4). In addition to the *Duke/Applegate* and *Edholm/Applegate* combinations being improper for the reasons given above, the addition of *Christie* to these combinations is further improper since the Examiner has also not provided any evidence of a suggestion to combine *Christie* with either of these combinations. Again, simply because the proposed combination would supposedly be desirable is insufficient under the M.P.E.P. and governing Federal Circuit case law. Appellants respectfully argue that there is no suggestion to combine these multiple references to teach the limitations of Claims 7, 15, 27, and 30, and that the Examiner is improperly using the Appellants' disclosure as a blueprint for piecing together various elements of the references to achieve the Appellants' invention. For these reasons, Appellants request allowance of Claims 7, 15, 27, and 30.

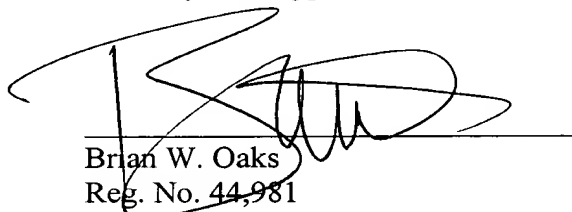
**Conclusion**

Appellants have demonstrated that the present invention, as claimed, is clearly distinguishable over the prior art cited by the Examiner. Therefore, Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

Appellants have enclosed a check in the amount of \$500.00 for this Appeal Brief. Appellants believe no additional fees are due. The Commissioner is hereby authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.  
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**Appendix A: Claims on Appeal**

1. (Previously Presented) A method for providing a virtual telephony intermediary between a first telephony device and a second telephony device, comprising:

associating a first logical port of the virtual telephony intermediary with the first telephony device;

associating a second logical port of the virtual telephony intermediary with the second telephony device;

receiving telecommunication data in a payload section of a packet sent from a first telephony device at the second logical port of the virtual telephony intermediary;

manipulating the telecommunication data received from the first telephony device;

modifying source address information associated with telecommunication data received at the second logical port from the first telephony device to specify the first logical port of the virtual telephony intermediary; and

communicating the manipulated telecommunication data with the modified source address information to the second telephony device.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) The method of Claim 1, wherein modifying source address information in the telecommunication data comprises modifying a source IP address and port information in a header of an Internet Protocol (IP) packet.

5. (Previously Presented) The method of Claim 1, wherein associating the first and second logical ports of the virtual telephony intermediary with the first and second telephony devices comprises associating a User Datagram Protocol (UDP) logical port with each telephony device to enable the streaming of IP packets to each telephony device.

6. (Original) The method of Claim 1, wherein manipulating the telecommunication data received from the first telephony device comprises duplicating the telecommunication data.

7. (Original) The method of Claim 1, wherein manipulating the telecommunication data received from the first telephony device comprises converting the telecommunication data from a first data format compatible with the first telephony device to a second data format compatible with the second telephony device.

8. (Cancelled)

9. (Original) The method of Claim 1, wherein manipulating the telecommunication data received from the first telephony device comprises replacing the telecommunication data with substitute telecommunication data.

10. (Previously Presented) A virtual telephony intermediary, comprising:  
a first logical port associated with a first telephony device;  
a second logical port associated with a second telephony device;  
a data manipulation module operable to manipulate telecommunication data in a payload section of a packet received from the first telephony device at the second logical port;  
a transmission module operable to communicate the manipulated telecommunication data to the second telephony device; and  
an address translation module operable to modify source address information associated with the telecommunication data received from the first telephony device to specify the first logical port of the virtual telephony intermediary.

11. (Original) The virtual telephony intermediary of Claim 10, wherein the first and second logical ports are User Datagram Protocol (UDP) logical ports.

12. (Cancelled)

13. (Previously Presented) The virtual telephony intermediary of Claim 10, wherein the address translation module is further operable to modify a source IP address and port information in a header of an IP packet.

14. (Original) The virtual telephony intermediary of Claim 10, wherein the data manipulation module is operable to duplicate the telecommunication data received from the first telephony device.

15. (Original) The virtual telephony intermediary of Claim 10, wherein the data manipulation module is operable to convert the telecommunication data received from the first telephony device from a first data format compatible with the first telephony device to a second data format compatible with the second telephony device.

16. (Original) The virtual telephony intermediary of Claim 15, wherein the first and second data formats are audio encoding formats.

17. (Original) The virtual telephony intermediary of Claim 10, wherein the data manipulation module is operable to replace the telecommunication data with substitute telecommunication data.

18. (Previously Presented) A communication network, comprising:  
a first telephony device;  
a second telephony device; and  
a virtual telephony intermediary logically inserted between the first and second telephony devices, the virtual telephony intermediary including:  
a first logical port associated with the first telephony device;  
a second logical port associated with the second telephony device;  
a data manipulation module operable to manipulate telecommunication data in a payload section of a packet received from the first telephony device at the second logical port;  
a transmission module operable to communicate the manipulated telecommunication data to the second telephony device; and  
an address modification module operable to modify source address information in the telecommunication data received from the first telephony device to specify the first logical port of the virtual telephony intermediary.

19. (Cancelled)

20. (Original) The communication network of Claim 18, further comprising a call manager operable to:  
generate the virtual telephony intermediary; and  
establish a communication link between the first telephony device and the second telephony device using the virtual telephony intermediary.

21. (Previously Presented) Virtual telephony intermediary software embodied in a computer-readable medium and operable to perform the following steps:

associating a first logical port of a virtual telephony intermediary with a first telephony device;

associating a second logical port of the virtual telephony intermediary with a second telephony device;

receiving telecommunication data in a payload section of a packet sent from the first telephony device at the second logical port of the virtual telephony intermediary;

manipulating the telecommunication data received from the first telephony device;

modifying source address information associated with telecommunication data received at the second logical port from the first telephony device to specify the first logical port of the virtual telephony intermediary; and

communicating the manipulated telecommunication data with the modified source address information to the second telephony device.

22. (Cancelled)

23. (Cancelled)

24. (Previously Presented) The virtual telephony intermediary software of Claim 21, wherein modifying source address information in the telecommunication data comprises modifying a source IP address and port information in a header of an Internet Protocol (IP) packet.

25. (Previously Presented) The virtual telephony intermediary software of Claim 21, wherein associating the first and second logical ports of the virtual telephony intermediary with the first and second telephony devices comprises associating a User Datagram Protocol (UDP) logical port with each telephony device to enable the streaming of IP packets to each telephony device.



26. (Original) The virtual telephony intermediary software of Claim 21, wherein manipulating the telecommunication data received from the first telephony device comprises duplicating the telecommunication data.

27. (Original) The virtual telephony intermediary software of Claim 21, wherein manipulating the telecommunication data received from the first telephony device comprises converting the telecommunication data from a first data format compatible with the first telephony device to a second data format compatible with the second telephony device.

28. (Original) The virtual telephony intermediary software of Claim 27, wherein the first and second data formats are audio encoding formats.

29. (Original) The virtual telephony intermediary software of Claim 21, wherein manipulating the telecommunication data received from the first telephony device comprises replacing the telecommunication data with substitute telecommunication data.

30. (Previously Presented) A method for providing a virtual telephony intermediary between a first telephony device and a second telephony device, comprising:

associating a first logical port of the virtual telephony intermediary with the first telephony device;

associating a second logical port of the virtual telephony intermediary with the second telephony device;

receiving telecommunication data in a payload section of a packet sent from a first telephony device at the second logical port of the virtual telephony intermediary;

manipulating the telecommunication data received from the first telephony device, wherein manipulating the telecommunication data comprises at least one of:

(i) converting the telecommunication data received from the first telephony device from a first audio encoding format compatible with the first telephony device to a second audio encoding format compatible with the second telephony device,

(ii) converting the telecommunication data received from the first telephony device from a first data compression format compatible with the first telephony device to a second data compression format compatible with the second telephony device, or

(iii) converting the telecommunication data received from the first telephony device from a first signaling protocol compatible with the first telephony device to a second signaling protocol compatible with the second telephony device;

modifying source address information associated with telecommunication data received at the second logical port from the first telephony device to specify the first logical port of the virtual telephony intermediary; and

communicating the manipulated telecommunication data with the modified source address information to the second telephony device.

31. (Previously Presented) The communication network of Claim 18, wherein the data manipulation module of the virtual telephony intermediary is operable to duplicate the telecommunication data received from the first telephony device.

32. (Previously Presented) The communication network of Claim 18, wherein the data manipulation module of the virtual telephony intermediary is operable to convert the telecommunication data received from the first telephony device from a first data format compatible with the first telephony device to a second data format compatible with the second telephony device.

33. (Previously Presented) The communication network of Claim 32, wherein the first and second data formats are audio encoding formats.

34. (Previously Presented) The communication network of Claim 18, wherein the data manipulation module of the virtual telephony intermediary is operable to replace the telecommunication data with substitute telecommunication data.

**Appendix B: Evidence**

NONE

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062891.0381

PATENT APPLICATION  
09/477,297

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**Appendix C: Related Proceedings**

NONE